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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800.755	03/06/2001	Robert Coggeshall	248588008US	3881

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EXAMINER

PHAN, MAN U

ART UNIT PAPER NUMBER

2665

DATE MAILED: 04/07/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

2

Office Action Summary

Application No.

09/800,755

Applicant(s)

COGGESHALL, ROBERT

Examiner

Man Phan

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 12-35 is/are rejected.
- 7) ☒ Claim(s) 7-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6, 8.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The application of Coggeshall for a "Contacting a computing device outside a local network " filed 03/06/2001 has been examined. Responsive to the restriction requirement filed on 01/20/2004, affirmation of the election has been made by applicant, and a provisional election was made without traverse to prosecute the invention of group I, claims 1-35. Claims 36-73 are withdrawn from further consideration by the Examiner, 37 C.F.R. ' 1.142(b), as being drawn to a non-elected invention. Claims 1-35 are pending in the application.

Claim Rejections - 35 USC ' 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 19-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Britton et al. (US#6,697,326) in view of Mellquist (US#6,115,545).

With respect to claims 19-24 and 29-35, the references disclose a novel method and system for establishing communications between two computing devices, according to the essential features of the claims. Britton et al. (US#6,697,326) provides a method of multiple computing hosts using the Internet Protocol (IP), and to the use of the Address Resolution Protocol (ARP) and to ensuring that only a single and consistent reply is generated in response to each ARP request. Britton teaches in Fig. 1 a block diagram illustrated a host containing three adapters, two of which are connected to a first network (TR1), and the third being connected to a different network (TR2) in communications (Col. 1, lines 36 plus and Col. 9, lines 45 plus). The Address Resolution Protocol (ARP), used in TCP/IP networks such as the Internet, provides to requesting hosts a mapping between an IP address and a media access control (MAC) address. A host which needs to learn the MAC address for a given IP address broadcasts an ARP request containing the IP address to all routers and hosts in a network. The requests are received by adapters at the hosts; it is an adapter that owns an IP address and a corresponding MAC address. The requesting host learns the MAC address corresponding to an IP address by virtue of an ARP reply to an ARP request. An ARP reply is sent from the host that owns the corresponding adapter or, in some cases, an adapter is arranged to perform ARP processing and it responds to ARP requests instead of the host (Col. 1, lines 14-32). In the same field of endeavor, Mellquist (US#6,115,545) discloses in Fig. 1 a simplified block diagram of a local network 32 with a local console 34 and a network device 33 are shown connected to. Local network 32 is connected to Internet 30 through a gateway 31

for establishing a network connection to the network device (Col. 4, lines 35 plus, and Col. 6, lines 63 plus).

Regarding claims 25-28, Mellquist further teaches in Fig. 3 a data flow diagram illustrated IP configuration of a network device in establishing communications, in which a network device connected to a local network is configured using a module operating within a console connected to the local network. Once activated, the module obtains an unused network address. After obtaining the unused network address, the console waits for receipt of a request from the network device. Upon receipt of the request, the console forwards to the network device a response. The response includes the unused address along with subnet and gateway information for the console. The console then establishes a network connection to the network device and displays on a monitor for the console, an address value, a subnet mask value and a gateway value for the network device (Col. 3, lines 30 plus).

One skilled in the art would have recognized the need for effectively and efficiently establishing communications between two computing devices utilizing ARP in a system of connected IP networks, and would have applied Mellquist's teaching of the IP configuration of network device connected to a local network into Britton's novel use of the ARP in a system of connected IP networks. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Mellquist's automatic IP address allocation and assignment into Britton's method and apparatus for generating replies to address resolution protocol (ARP) requests with the

motivation being to provide a method and system for establishing contact with a computing device that is outside the distinguished computer network.

4. Claims 1-6 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Britton et al. (US#6,697,326) in view of Mellquist (US#6,115,545) as applied to the claims above, and further in view of O'Toole et al. (US#6,345,294).

With respect to claims 1-6 and 12-17, Britton et al. (US#6,697,326) and Mellquist (US#6,115,545) disclose the claimed limitations discussed in paragraph 3 above.

However, these claims differ from the claims above in that the claims require the feature of using the logical target address of the message to communicate with the second node.

In the same field of endeavor, O'Toole et al. (US#6,345,294) discloses such configuration establishing communications between computing devices in different networks.

O'Toole teaches in Fig. 4 a flow chart illustrated the boot procedure of an appliance in establishing communications, wherein the booting parameters comprise an IP address of the appliance. With reference to Fig. 4, the appliance, upon being powered on (step 100), makes use of known protocols of boot or DHCP requests (step 102) to obtain a source of network parameters. The boot server or DHCP server is a computer that acts as a server in the local networking environment and that responds to certain types of route requests messages. A boot server or DHCP server typically responds with a small message that contains some parameters that the requesting computer needs to be given (step 104).

These parameters typically include the IP address of the appliance that is attempting to boot, the subnet mask of the appliance, the IP addresses of one or more routers (typically

one router closest to the appliance, such as a router within the same building as the appliance, which may be connected directly to the Internet or which instead may be internal for a large building), one or more name servers (typically two or more name servers; computers, in order to operate properly, often need to be told the address of the name server that is used to translate the names of computers, including addresses of computers), as well as numerous optional parameters. The appliance can construct candidate network parameters both by communicating with a boot server or DHCP server, as described above, and by simply observing other traffic on the network. If the appliance has received candidate network parameters from a boot server or a DHCP server (step 104), it will test these parameters by attempting to send and receive network messages (step 106) (Col. 7, lines 40plus).

One skilled in the art would have recognized the need for effectively and efficiently establishing communications between two computing devices utilizing ARP in a system of connected IP networks, and would have applied O'Toole's configuring the second node to receive messages at the logical target address of the message, and Mellquist's teaching of the IP configuration of network device connected to a local network into Britton's novel use of the ARP in a system of connected IP networks. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply O'Toole's methods and apparatus for remote configuration of an appliance on a network, and Mellquist's automatic IP address allocation and assignment into Britton's method and apparatus for generating replies to address resolution protocol (ARP) requests with the motivation being to provide a

method and system for establishing contact with a computing device that is outside the distinguished computer network.

Allowable Subject Matter

5. Claims 7-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest wherein it is determined that no address resolution response to the detected address resolution request is transmitted from a node in the first network other than the first node if at least a threshold period of time elapses after the address resolution request is detected/if the detected address resolution request is rebroadcast at least a threshold number of times without a response to the detected address resolution request being detected, as specifically recited in claims 7-9; whether in response to determining that no address resolution response to the detected address resolution request is transmitted from a node in the first network other than the first node,. Sending a gratuitous address resolution protocol request identifying the first node as the owner of the logical target address contained in the detected address resolution request, as recited in claims 10-11.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Miyazaki et al. (US#5,517,488) is cited to show the method of load distribution for message processing in host system in local area network.

The Hirviniemi (US#5,802,285) is cited to show the wide area network (WAN) interface for a transmission control protocol/internet protocol (TCP/IP) in a local area network (LAN).

The Massarani (US#6,393,484) is cited to show the system and method for controlled access to shared-medium public and semi-public IP networks.

The Thubert et al. (US#6,603,769) is cited to show the method and system for improving traffic operation in an internet environment.

The Mouko et al. (US#6,678,732) is cited to show the dynamic host configuration protocol server for allocating IP addresses to a plurality of clients.

The Tsuruoka (US#6,101,189) is cited to show gateway apparatus and packet routing method.

The Hashimoto (US#5,781,552) is cited to show the automatic address setter capable of determining a network address of a host station.

The Gioquindo et al. (US#6,330,616) is cited to show the system for communications of multiple partitions employing host network interface, and ARP for constructing data frame format according to client format.

The Arndt et al. (US#5,708,654) is cited to show the method for detecting proxy ARP replies from devices in LAN.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (703)305-1029.

The examiner can normally be reached on Mon - Fri from 6:30 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 305-9051, (for formal communications intended for entry)

Or: (703) 305-3988 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Mphan

04/01/2004.

Man U. Phan
MAN PHAN
PATENT EXAMINER